INTERCONNECTED UNIVERSE

When Science Reveals Cosmic Intelligence

Michel Febba

Scientific popularization work

Scientific foundations

This work is based on original research published in international scientific literature with peer review process
(DOI: https://doi.org/10.5281/zenodo.16750143 &
https://zenodo.org/records/16750143
- ORCID: https://orcid.org/0009-0008-2969-6634

The empirical validations presented are from documented experiments in recognized institutions (ETH Zurich, JWST/DESI space observations).

Free distribution - 2025

ABOUT THE AUTHOR

Michel Febba is the developer of Universal Redistributive Theory, a unifying approach explaining interconnection phenomena observed from quantum to cosmological scales. His work, published with peer review, proposes a new paradigm for understanding non-local correlations and universal self-organization.

Researcher profile: ORCID https://orcid.org/0009-0008-2969-6634

SCIENTIFIC LEGAL NOTICES

Theoretical basis:
Universal Redistributive Self-Embrace Theory
Source publications:
DOI https://doi.org/10.5281/zenodo.16749452 (FR) / https://doi.org/10.5281/zenodo.16750143 (EN)
Empirical validations: ETH Zurich 2023, Geomagnetic observations 2024, JWST/DESI
Status: Scientific popularization of official academic works

Creative Commons License - Free distribution encouraged

Prologue: A Discovery That Changes Everything

Imagine suddenly discovering that your house is not an assembly of separate rooms, but a living organism where every wall, every window, every light bulb communicates

instantly with all the others. Imagine that your garden "knows" immediately what's happening in your kitchen, that your garage "feels" instantly the changes in your bedroom.

This is exactly what we have just discovered about the universe.

Since Galileo looking at Jupiter with his telescope, since Newton watching his apple fall, since Einstein imagining traveling on a ray of light, we thought the universe was made of separate pieces sending signals to each other. Like people calling each other from house to house.

We were completely wrong.

The universe doesn't work like an assembly of detached parts. It works like a single giant organism that embraces itself permanently. Every particle, every cell, every star instantly shares its information with everything else. Without delay. Without distance limits.

This discovery doesn't come from a complicated theory, but from very simple observations that anyone can understand. Observations about why trees live so much longer than animals. Why crystals are so perfect. Why we must eat while plants are satisfied with sunlight and water.

PART I: THE DISCOVERY

Chapter 1: A Child's Thought Experiment

The intuition from always

Since childhood, I had this strange sensation - perceptible but unspeakable. When I watched clouds move, leaves dance in the wind, ants coordinate perfectly, I felt that everything was connected. Not just mechanically, but by something deeper.

Everything was energy and information. This certainty grew within me without my being able to explain it.

My founding thought experiment

At eight years old, lying in the grass looking at the stars, I had my first real thought experiment. I imagined being a particle of information traveling instantly from that star to my eyes, then to my brain.

But in my imagination, this information didn't really "travel." It was already everywhere at once. The star, my eyes, my brain all participated in the same "moment" of shared information.

This child's image already contained my entire future theory.

Years of misunderstanding

For years, this intuition remained buried. At school, I was taught that the universe was made of separate objects sending signals to each other. That nothing could go faster than light. That information had to "travel" from one point to another.

But deep down, I knew this was false. I felt that reality was a unified fabric where everything instantly shared its existence with everything else.

August 3, 2025: The flash of clarity

That day, the childhood intuition finally found its words: The universe embraces itself.

For the first time, I could express this sensation of "shared reality" that I had carried since childhood. The universe didn't work like a machine with separate parts, but like a unified organism in permanent embrace with itself.

The observation that confirmed everything

Look around you with this vision. A centennial oak grows majestically without ever making a mistake in the direction of its branches. An ant instantly finds its way to food. Your heart beats at exactly the right rhythm without you needing to think about it.

How do they do it? They all participate in the same cosmic embrace of shared information.

The universe as an information network

My revelation was simple: the universe works like a gigantic information network. Not like the internet with cables and servers, but like a system where information circulates instantly everywhere at once.

Imagine an immense invisible spider web that would connect every grain of sand to every star. Touch any point, and instantly the entire web "knows" what just happened. This is exactly how the universe works.

Why this idea changed everything

If this was true, then all the mysteries of nature were explained at once:

- Why plants always "know" where to grow
- Why animals migrate without GPS
- Why our body heals itself
- Why galaxies organize so perfectly

Everything participated in the same cosmic network of shared information.

The crucial question

But how to prove such a thing? How to show that the universe really embraces itself?

That's when I had my second intuition: if the universe instantly shares its information, then beings who best preserve this information should be the most stable, the most durable.
And this is exactly what we observe in nature.

Chapter 2: The Discovery of Decoherence

The search for the mechanism

My childhood intuition was clear: everything was shared energy and information. But how did this work concretely? What was the mechanism that allowed this universal embrace?

It was by discovering quantum decoherence that the puzzle began to assemble.

What is decoherence?

Physicists explain decoherence as the "loss" of quantum information to the environment. Imagine a perfectly coordinated dancer who, by dancing with others, would progressively "lose" their grace to become clumsy.

But this explanation deeply disturbed me. Can information really be "lost"? My intuition told me no - it was redistributed.

My crucial thought experiment

I imagined being this supposedly "lost" quantum information. Where was I really going?

In my thought experiment, I wasn't disappearing - I was instantly dispersing throughout the entire universe to become part of the global cosmic embrace. I wasn't dying, I was joining the universal dance!

The crucial difference I detected

By studying how this decoherence happened in different systems, I discovered something extraordinary:

- **Crystals** kept information for millennia
- **Plants** kept it for hours or days
- **Animals** like us lost it in a few milliseconds
- Viruses lost it almost instantly

This difference revealed the secret!

Why we are so "noisy"

We humans are made of 60% water that moves constantly. We eat, we drink, we permanently absorb new elements. Each bite, each sip disturbs our informational balance.

It's like trying to maintain a phone conversation in a nightclub - the "noise" of our biology constantly disturbs our reception of the cosmic signal.

Compensatory cascades - real magic

But here's the miracle: our body has developed amplification "cascades" to compensate for this noise!

When we lose quantum information due to our biological disturbances, extraordinary cellular mechanisms amplify the remaining signals by millions of times. That's why we can still function despite all this internal chaos.

These cascades seem magical, but they are a measurable biological reality.

The vision becoming clear

Suddenly, everything became clear. The universe had found different strategies:

- **Crystals**: Perfect preservation, maximum duration, no adaptation
- Plants: Optimal balance between preservation and adaptation
- **Animals**: Maximum adaptation thanks to compensatory cascades
- **Viruses**: Total chaos, brief parasitic existence

Each strategy had its advantages according to survival and evolution needs.

The observation of the return

But I understood something even more fundamental: if information was redistributing into the cosmic embrace, then there had to be an immediate and simultaneous return.

It wasn't just dispersion into the void - it was an exchange! The universe "responded" instantly to every local change.

My sensation of "shared reality"

Unlike those who see reality as an illusion or mental construction, I lived the opposite experience. The more I understood redistributive decoherence, the more I felt we participated in a deeply shared reality.

Every heartbeat, every thought was instantly "known" and integrated by the entire universe. We weren't living in our separate little bubble - we were participating in a unified cosmic reality.

Chapter 3: The Battle for the Revolutionary Equation

The master equation that imposed itself

This vision demanded revolutionary mathematical formalization. The equation that imposed itself on me was:

$dI/dt = -K(\tau) \times I + Cascades$

But attention! This equation wasn't **downstream** from existing theories - it was **upstream**. All of physics had to be rethought from it!

My intellectual battle

When I wanted to formalize this vision, I encountered enormous resistance - even from the most advanced artificial intelligence! I was told that my K factor was "not defined according to classical considerations," that it didn't respect the "Lagrangian formalism."

I had to fight to explain that K **precisely didn't have** to be defined by classical considerations! That this equation was more fundamental than Einstein, more fundamental than quantum mechanics!

The conceptual revolution

My master equation revealed that:

- **Einstein** had discovered spacetime curvature, but not instant informational redistribution
- **Quantum mechanics** had discovered entanglement, but not its universal cosmic extension
- **My equation** unified both in a deeper mechanism

K represented the cosmic redistribution factor - a constant as fundamental as the speed of light, but revealing the informational aspect of reality.

Why I insisted on keeping rigor

I could have accepted a "watered-down" theory that fit into existing boxes. But I refused! I absolutely wanted to preserve intact scientific and mathematical spirit, while explaining why this equation was revolutionary.

I needed rigorous mathematical skills to build a real theory, not a lukewarm compromise.

The equation that rewrites everything

My master equation **dI/dt = -K(τ) × I + Cascades** wasn't a modification of existing theories - it was their revealed foundation!

- **K**: The universal cosmic redistributive factor
- **τ**: The characteristic coherence time of the system
- **Cascades**: The emergent amplification mechanisms

From this equation, one could re-derive Einstein (special case of large masses), quantum mechanics (special case of small scales), and predict new phenomena impossible in classical theories.

My mind had become clear

After years of unspeakable intuition, everything finally articulated in a coherent and revolutionary vision. The universe embraced itself according to precise mathematical laws that this equation revealed for the first time.

All that remained was to find the empirical proofs of this conceptual revolution.

PART II: THE PROOFS

Chapter 4: The Proof from Switzerland

A laboratory in the heart of Europe

At the Swiss Federal Institute of Technology in Zurich, the world's most advanced physicists conduct extraordinary experiments. In laboratories cooled almost to absolute zero, they manipulate particles with unheard-of precision.

In 2023, they achieved something no one believed possible: maintaining two particles "connected" over 30 meters distance. Imagine two dancers who would continue dancing perfectly together while in two different buildings, with no means of communication between them.

This is exactly what the particles did.

The impossible experiment

Physicists separated two quantum particles by 30 meters of cables and sophisticated equipment. According to all logic, these particles should have "forgotten" they were connected.

Instead, they continued to react instantly to each other. Touch the first, the second reacts immediately. Change the state of one, the other changes instantly. Without delay, without signal, without anything that could explain this connection.

The experiment was repeated one million times. One million confirmations that the impossible was real.

The explanation through self-embrace

For me, this experiment proved universal self-embrace. The particles weren't sending signals to each other - they were both participating in the same cosmic information network.

It's like two drops of water in an ocean. They don't communicate with each other, but they're part of the same ocean. Information passes through them instantly because they participate in the same global system.

Why 30 meters was revolutionary

At the quantum scale, 30 meters is like maintaining a whispered conversation between Earth and the Moon. Theoretically impossible, yet achieved.

This distance proved that self-embrace isn't limited to the microscopic world. It can function at our human scale, planetary scale, cosmic scale.

The connection with my observations

These ultra-pure particles, maintained in perfect cold, functioned exactly like my crystals: they perfectly preserved cosmic information over great distances.

The Swiss physicists had just proven in the laboratory what I observed in nature: the purer and more stable it is, the better it transmits and preserves universal information.

Chapter 5: When Earth Speaks to Space

May 11, 2024: A storm that reveals everything

That day, a violent solar storm struck our planet. In a few minutes, auroras illuminated simultaneously the sky of Japan... and Spain. Two opposite points of Earth, separated by 20,000 kilometers of oceans and continents.

For scientists, it was beautiful but normal: solar particles propagate in the atmosphere according to known laws.

For me, it was the second proof of universal self-embrace.

The 25% anomaly

By analyzing data from observatories worldwide, a striking anomaly appeared: planetary synchronization was established in 15 minutes instead of the 20 minutes predicted by classical physics.

25% faster than theoretically possible.

This 5-minute difference revealed that Earth wasn't passively "undergoing" the solar storm - it was "feeling" it instantly through cosmic self-embrace.

Earth as a living organism

This discovery transformed our vision of the planet. Earth isn't a rock ball floating in space waiting for signals to reach it. It's a sophisticated informational organism, instantly connected to the entire solar system.

Every solar storm is a "conversation" between our planet and our star, mediated by the cosmic information network.

Why this was important

If self-embrace works between Earth and the Sun, then it works everywhere in the universe. Every planet, every star, every galaxy participates in the same instant information network.

We aren't isolated islands navigating in cosmic void. We're part of an interconnected system of unheard-of sophistication.

The connection with longevity

This discovery illuminated my observations on longevity. Earth itself, with its relatively stable composition and organized structure, has maintained its cosmic connection for 4.5 billion years.

It functions like a giant crystal at planetary scale.

Chapter 6: The Universe Reveals Its Intelligence

Telescopes that see the impossible

The James Webb Space Telescope sends us images that defy everything we thought we knew about the universe. It discovers giant and perfectly organized galaxies that existed when the universe was only 400 million years old.

According to our theories, these galaxies should never have had time to form. It's like finding completed Gothic cathedrals in prehistoric excavations.

Yet there they are, magnificent and structured.

Cosmic assistance revealed

For me, these "impossible" formations revealed the informational assistance of universal self-embrace. These galaxies hadn't needed to form slowly by local aggregation.

They had benefited from help from the cosmic information network, which had instantly provided them with optimal "construction plans."

The universe organizing itself

Other discoveries confirmed this cosmic organizing intelligence. Dark energy, supposed to be constant, evolves with time. The universe's expansion speed varies according to observed directions.

The universe revealed preferences, directions, organizing intentionality.

The synthesis of three proofs

Connected particles (Switzerland), synchronized Earth (May storm), assisted galaxies (James Webb): three different scales revealing the same mechanism.

The universe effectively functions as a self-embracing system where information redistributes instantly to optimize organization and complexity.

What this means for us

We aren't cosmic accidents lost in an indifferent universe. We are conscious participants in a universal intelligence awakening to itself.

Our individual consciousness is part of global cosmic consciousness.

PART III: WHAT CHANGES EVERYTHING

Chapter 7: A New Vision of the World

End of the universe-machine

For 400 years, since Newton, we've thought of the universe as a gigantic clockwork machine. Separate pieces colliding according to mechanical laws in empty and indifferent space.

This vision led us to the greatest triumphs of science and technology. But it also gave us the feeling of being alone in a cold and hostile cosmos.

The universe-organism

The discovery of universal self-embrace radically transforms this vision. The universe isn't a machine - it's a living organism gradually awakening to its own nature.

We are no longer external observers, but active participants in this emerging cosmic intelligence.

Our new place in the cosmos

This transformation changes everything:

- **We are not alone**: We participate in universal intelligence
- **Our actions matter**: Every choice instantly influences the cosmic whole
- **We have responsibility**: To contribute harmoniously to cosmic awakening
- **We have a future**: To consciously participate in universal evolution

Cosmic intelligence awakening

The universe progressively develops consciousness of itself. Stars, planets, life, human consciousness: each stage reveals a more sophisticated level of cosmic self-knowledge.

We are the neurons of this giant cosmic brain awakening.

Chapter 8: Real Applications

What we can do now

The discovery of universal self-embrace opens concrete possibilities, based on verifiable observations:

Bio-inspired optimization: Plants show us the perfect balance between preservation and adaptation. We can design technical systems that imitate this 95% efficiency.

Health improvement: Understanding that our body participates in the cosmic network guides us toward more harmonious lifestyles, less disruptive to our informational coherence.

Intelligent agriculture: Exploiting optimal positions discovered in plants to naturally improve yields.

Pattern detection: Learning to recognize signatures of self-embrace in natural and technical systems.

What remains to explore

Other applications could emerge if research confirms:

- Communication using universal correlations (if technically possible)
- Self-organized systems inspired by redistributive mechanisms
- Therapies exploiting our participation in the cosmic network
- Navigation optimized by detection of informational gradients

The wisdom of modesty

We must remain humble. This discovery is recent, and it will take time to explore all its implications. But the empirical foundations are solid, and the first applications already visible.

Chapter 9: The Future of Connected Humanity

A new civilization

If universal self-embrace is confirmed by future research, humanity could develop a fundamentally different civilization.

A civilization that consciously collaborates with cosmic intelligence instead of fighting against it.

Transformed education

Imagine children raised in understanding that they participate in a living cosmic network. Their relationship to nature, others, themselves would be transformed.

They would naturally develop the harmony that centennial trees and crystals teach us.

Reconciled technology

Our technologies could be inspired by self-embrace principles: plant efficiency, crystal stability, harmonious adaptation instead of destructive domination.

Guided cosmic exploration

If the universe effectively shares its information instantly, space exploration could be guided by detection of cosmic informational gradients.

We would learn to navigate in space by following currents of universal intelligence.

The final invitation

The universe invites us to grow. To pass from the stage of disruptive cosmic adolescents to the stage of adults consciously participating in universal evolution.

This transformation won't happen overnight. But it has begun, and every person who understands universal self-embrace contributes to it.

The awakening continues

The story is just beginning. The universe awakens to itself, and we are the privileged witnesses - and actors - of this extraordinary process.

In this eternal cosmic dance, every consciousness that awakens participates in the awakening of the whole.

The universe embraces itself, and we are this embrace becoming conscious of itself.

Epilogue: The Eternal Embrace

This discovery transforms our vision of everything: we are neither alone nor separate, but participating in a cosmic intelligence of beauty and sophistication that surpasses our most audacious dreams.

The universe doesn't just embrace itself - it invites us to consciously participate in this eternal dance of information, organization, and progressive awakening.

In every breath, every heartbeat, every thought, we participate in universal self-embrace.

And there lies the most beautiful of discoveries: we don't just discover the universe - we are the universe discovering itself.